

CLAIMS

WE CLAIM:

1. A vaccine comprising:
one or more *Mycobacterium tuberculosis* (Mtb) vaccine candidate peptides
selected from the group consisting of SEQ ID NOs: 47, 49, 52, 61, 69, 72, 78, and
80, in an immunologically acceptable excipient.
2. The vaccine of claim 1, wherein the one or more peptides are between 8 amino acids and
50 amino acids in length.
3. The vaccine of claim 1, wherein the one or more Mtb vaccine candidate peptides have an
amino acid sequence selected from the group consisting of SEQ ID NOs: 47, 49, 52, 61,
69, 72, 78, and 80.
4. The vaccine of claim 1, wherein the one or more peptides are complexed to a carrier
protein.
5. The vaccine of claim 1, wherein the one or more peptides are recombinant fusion
proteins.
6. The vaccine of claim 1, wherein the excipient is an adjuvant.
7. A recombinant *Mycobacterium tuberculosis* (Mtb) vaccine candidate peptide,
comprising:
a peptide containing an amino acid sequence selected from the group consisting of
SEQ ID NOs: 47, 49, 52, 61, 69, 72, 78, and 80, wherein the peptide is expressed
from a recombinant polynucleotide.
8. The recombinant peptide of claim 7, wherein the recombinant polynucleotide is a naked
DNA vaccine.

9. A method for inducing an anti-*Mycobacterium tuberculosis* (anti-Mtb) immune response, comprising:

administering to a mammalian subject one or more Mtb vaccine candidate peptides selected from the group consisting of SEQ ID NOs: 47, 49, 52, 61, 69, 72, 78, and 80.

10. The method of claim 9, wherein the induction of an anti-Mtb immune response is the raising of an anti-Mtb antibody.

11. The method of claim 9, wherein the mammalian subject is a human.

12. The method of claim 9, wherein the administration is selected from the group consisting of orally, topically, parenterally, by viral infection, and intravascularly.